

CLAIMS

1. A system for connecting the ends of fluid conduits, comprising a female part (F) intended to receive a portion of a male part (M), the male and female parts each comprising a shutter (15; 9) for closing the fluid conduits, which is normally closed and can be moved into the open position when the system is in the connected configuration, the male and female parts each additionally including an isolation shutter (19; 17) which is normally closed and can be moved into the open position during the introduction of the male part into the female part.
- 15 2. The system as claimed in claim 1, characterized in that the female part (F) comprises a tubular guide (4) with which the male part (M) cooperates by sliding in a leaktight manner.
- 20 3. The system as claimed in claim 2, characterized in that the end (11) of the male part (M) comprises a sliding seal (20) cooperating with the tubular guide (4) of the female part (F).
- 25 4. The system as claimed in either of claims 2 and 3, characterized in that the male part (M) has a central mandrel (12) comprising the closure shutter (15) of the fluid supply conduit (13) and engaging by sliding in the tubular guide (4) of the female part (F).
- 30 5. The system as claimed in one of claims 2 to 4, characterized in that the male part (M) comprises, to the rear of the sliding seal (20), at least a first pivoting flap (19) capable of cooperating with the end (5) of the tubular guide (4) of the female part (F) during the introduction of the male part into the female part.

6. The system as claimed in either of claims 4 and 5, characterized in that the tubular guide (4) of the female part (F) comprises a second pivoting flap (17) capable of cooperating with the end of the central 5 mandrel (12) of the male part (M) during the introduction of this male part into the female part (F).

7. The system as claimed in claim 6, characterized in 10 that the tubular guide (4) of the female part (F) comprises, to the front of the second flap (17), an annular part (5) cooperating by sliding with the periphery of the central mandrel (12) of the male part (M).

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8. The system as claimed in one of claims 2 to 7, characterized in that the female part (F) comprises, in the back of the tubular guide (4), a central tubular element (6) comprising the closure shutter (9) of the 20 fluid-receiving conduit (7) and forming an axial stop for the male part.

9. The system as claimed in claim 8, in its appendage to one of claims 4 to 7, characterized in 25 that one of the closure shutters (15; 9) is rigidly secured to a stem (21) cooperating in an axially butting manner with the other closure shutter when the system is in the connection configuration.

30 10. The system as claimed in one of claims 2 to 9, characterized in that the end of the tubular guide (4) of the female part (F) is able, at rest, to be closed off by a removable cap (30).

35 11. The system as claimed in one of the preceding claims, characterized in that the male part (M) is configured in the form of a nozzle (50) which can be actuated manually.

12. The system as claimed in one of the preceding claims, characterized in that the female part (F) is arranged within the body (52) of a motor vehicle.

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13. The system as claimed in one of the preceding claims, characterized in that the fluid is liquid hydrogen or liquefied natural gas.